DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-022962
Date Inspected: 22-Apr-2011

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Job Site

CWI Name:	Steve Jensen		**CWI Present:**	☑ Yes	☐ No
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☐ Yes ☐ No ☑ N/A
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes ☐ No ☐ N/A
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
				Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: Tower

Summary of Items Observed:

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above. This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and monitor American Bridge/Fluor (ABF) welding operations. This Quality Assurance (QA) Inspector, Craig Hager observed the following.

South Tower leg, Splice at the 83 meter elevation: The upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner are complete at this location.

West Tower leg, Splice at the 83 meter elevation: This QA Inspector randomly observed the work in progress on the upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner. During this shift the following was observed.

West - B-C corner, upper plate: This QA Inspector randomly observed the induction heating blanket was being used to preheat the lower half of the plate prior to welding. This QA Inspector observed the induction heating blanket was removed and a hand held gas torch was used by ABF welding personnel Salvador Sandoval (#2202) to bring the area up to temperature for welding. This QA Inspector observed QC Inspector Steve Jensen use an electronic temperature gauge to verity the preheat temperature. This QA Inspector randomly observed ABF welding personnel Salvador Sandoval (#2202) using the Flux Cored Arc Welding (FCAW) process for production welding at this location. This QA Inspector randomly observe d as QC Inspector Steve Jensen monitored and verified the following welding parameters; 260 amperes and 22 volts at a travel speed of 90 mm per minute to

produce a heat input of 3.81 Kj per mm. The welding observed appeared to comply with ABF-WPS-D15-F2200-3. This QA Inspector observed welding appeared to be completed on the bottom half of the plate and WBF welding personnel Salvador Sandoval (#2202) switch to the Shielded Metal Arc Welding (SMAW) process to weld the bottom fillet weld. This QA Inspector randomly observed Steve Jensen verify the following welding parameters; 185 amperes using a 4.0 mm diameter E7018 electrode. The welding observed appeared to comply with ABF-WPS-D15-1200A. By the end of the shift this date welding at this location appeared to have been completed. This QA Inspector randomly observed as the induction heat blanket was positioned over the splice plate this date. ABF welding Foreman Eric Sparks (#3040) informed this QA Inspector the post weld heating equipment was set to maintain the minimum preheat temperature of 300°F and hold that temperature for a period of 3 hours and then shutdown.

West - C-D corner, lower plate: This QA Inspector observed ABF welding personnel Richard Garcia (#5892) using a power grinder to contour the surface of weld where marked by QC Inspector Steve Jensen.

North Tower leg, Splice at the 83 meter elevation: This QA Inspector randomly observed the work in progress on the upper and lower Interior Corner Closure Splice Plates located at the B- C corner and C-D corner. During this shift the following was observed.

This QA Inspector observed all 4 splice plates (B-C upper and lower and C-D upper and lower) had been fit up and were being held into position with fitting aids and wedges. This QA Inspector had previously been informed by QC Inspector Steve Jensen that he had performed a visual inspection of the splice plate and that he had accepted the fit up and that there no gaps greater than 5 mm at any location. This QA Inspector performed a random visual verification and did not observed any gaps greater than 5mm. This QA Inspector observed QC Inspector Steve Jensen had marked adjacent to the weld joint the actual gap. This QA Inspector observed several random areas, all short in length, that were marked as having a 4mm gap.

This QA Inspector also observed ABF personnel Todd Jackson setting up ventilation in this tower this date.

Tower Base – 3 to 13 Meter elevation; This QA Inspector was informed by QC Inspector Pat Swain that work would not be performed at this location this date.

Summary of Conversations:

This QA Inspector had general conversations with American Bridge/Fluor (ABF) and Caltrans personnel during this shift. Except as described above and noted below there were no notable conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer